We claim:

1. An aqueous binder composition comprising a mixture of an epoxy-reactive polymer and an epoxy-functional polymer.

2. The composition of claim 1 wherein the epoxy-reactive polymer contains pendant epoxy-reactive functional moieties selected from the group consisting of carboxyl groups, anhydrides, amines, polyamides, phenolic resins, isocyanates, polymercaptans and alcohols.

3. The composition of claim 1 wherein the epoxy-reactive polymer contains pendant carboxyl groups.

4. The composition of claim 1 wherein the epoxy-reactive polymer is a carboxylated vinyl acetate-ethylene terpolymer emulsion.

5. The composition of claim 1 wherein the epoxy-reactive polymer is a carboxylated acrylic polymer emulsion.

6. The composition of claim 1 wherein the epoxy-functional polymer is water-soluble poly(methyldiallylamine)-epichlorohydrin resin.

7. The composition of claim 1 wherein the epoxy-functional polymer is a water-soluble poly-functional epoxy resin having a 4 or more pendant epoxy groups.

8. The composition of claim 7 wherein the number of pendant epoxy groups is about 10 or more.

9. The composition of claim 7 wherein the number of pendant epoxy groups is about 50 or more.

10. The composition of claim 7 wherein the number of pendant epoxy groups is about 100 or more.

11. The composition of claim 7 wherein the number of pendant epoxy groups is from about 10 to about 2000.

12. The composition of claim 7 wherein the number of pendant epoxy groups is from about 10 to about 1000.

13. The composition of claim 7 wherein the number of pendant epoxy groups is from about 25 to about 1000.

14.. The composition of claim 1 wherein the amount of the epoxy-functional polymer relative to the amount of the epoxy-reactive polymer is from about 0.5 dry weight percent to about 200 dry weight percent.

15. The composition of claim 1 wherein the pH is from about 4 to about 10.

16. A fibrous sheet having first and second outer surfaces, wherein at least one outer surface comprises a topically-applied network of a cured binder composition resulting from the cross-linking reaction of an epoxy-reactive polymer and an epoxy-functional polymer.

17. The sheet of claim 16 wherein the cured binder composition resides on only one outer surface.

18. The sheet of claim 16 wherein the cured binder composition resides on both outer surfaces.

19. The sheet of claim 18 wherein the cured binder composition on the first outer surface is different than the cured binder composition on the second outer surface.

20. The sheet of claim 18 wherein the network of the cured binder composition on the first outer surface is deposited in a pattern that is different than the network of the cured binder composition on the second outer surface.

21. The sheet of claim 18 wherein the cured binder composition on the first outer surface is different than the cured binder composition on the second outer surface and wherein the network of the cured binder composition on the first outer surface is deposited in a pattern that is different than the network of the cured binder composition on the second outer surface.

22. The sheet of claim 16 wherein the binder network is a printed pattern of regularly spaced-apart deposits.

23. The sheet of claim 16 wherein the binder network is a sprayed pattern of randomly-spaced deposits.

24. The sheet of claim 16 wherein the surface area coverage of the binder is from about 5 to about 90 percent.

25. The sheet of claim 16 wherein the sheet is formed by air-laying.

26. The sheet of claim 16 wherein the sheet is formed by wet-laying.

27. The sheet of claim 16 wherein the cross-machine direction wet/dry tensile strength ratio increased about 30 percent or greater within 14 days of manufacture.

28. The sheet of claim 16 wherein the cross-machine direction wet/dry tensile strength ratio increased about 50 percent or greater within 14 days of manufacture.

29. The sheet of claim 16 wherein the cross-machine direction wet/dry tensile strength ratio increased about 70 percent or greater within 14 days of manufacture.

30. A multi-ply paper towel comprising two outer plies, each of which has an outer surface and an inner surface, wherein one or both outer surfaces comprise a topically-applied network of a cured binder composition resulting from the cross-linking reaction of an epoxy-reactive polymer and an epoxy-functional polymer.

31. The paper towel of claim 30 consisting of two plies and having a first outer surface and a second outer surface.

32. The paper towel of claim 31 wherein both outer surfaces comprise a topically-applied network of a cured binder composition.

33. The paper towel of claim 32 wherein the cured binder composition on the first outer surface is different than the cured binder composition on the second outer surface.

34. The paper towel of claim 32 wherein the network of the cured binder composition on the first outer surface is deposited in a pattern that is different than the network of the cured binder composition on the second outer surface.

35. The paper towel of claim 32 wherein the cured binder composition on the first outer surface is different than the cured binder composition on the second outer surface and wherein the network of the cured binder composition on the first outer surface is deposited in a pattern that is different than the network of cured binder composition on the second outer surface.

36. The paper towel of claim 30 comprising two outer plies and at least one inner ply.

37. The paper towel of claim 36 wherein at least one inner ply does not contain a surface-applied network of a cured binder composition.

38. A multi-ply paper towel comprising two outer plies, each of which has an outer surface and an inner surface, wherein both inner surfaces comprise a topically-applied network of a cured binder composition resulting from the cross-linking reaction of an epoxy-reactive polymer and an epoxy-functional polymer.

39. The paper towel of claim 38 consisting of two plies and having a first inner surface and a second inner surface.

40. The paper towel of claim 39 wherein both inner surfaces comprise a topically-applied network of a cured binder composition.

41. The paper towel of claim 40 wherein the cured binder composition on the first inner surface is different than the cured binder composition on the second inner surface.

42. The paper towel of claim 40 wherein the network of the cured binder composition on the first inner surface is deposited in a pattern that is different than the network of the cured binder composition on the second inner surface.

43. The paper towel of claim 40 wherein the cured binder composition on the first inner surface is different than the cured binder composition on the second inner surface and wherein the network of the cured binder composition on the first inner surface is deposited in a pattern that is different than the network of cured binder composition on the second inner surface.

44. The paper towel of claim 30 comprising two outer plies and at least one inner ply.

45. The paper towel of claim 44 wherein at least one inner ply does not contain a surface-applied network of a cured binder composition.

46. A method of increasing the strength of a fibrous web comprising topically applying an aqueous binder composition to one or both outer surfaces of the web, wherein the binder composition comprises a mixture of an epoxy-reactive polymer and an epoxy-functional polymer.

47. The method of claim 46 wherein the pH of the epoxy-functional polymer is raised by the addition of alkali prior to blending the epoxy-functional polymer with the epoxy-reactive polymer.

48. The method of claim 47 wherein the pH of the epoxy-functional polymer is raised to about 10 or greater.

49. The method of claim 46 wherein the aqueous binder composition is cured at a temperature of 120 °C. or less.

50. The method of claim 46 wherein the aqueous binder composition is cured at a temperature of 100 °C. or less.

51. The method of claim 46 wherein the aqueous binder composition is cured at a temperature of 40 °C. or less.

52. The method of claim 46 wherein the aqueous binder composition is cured at a temperature of from about 20 to about 120 °C.

53. The method of claim 46 wherein the aqueous binder composition is cured without the emission of formaldehyde.